



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,068	06/18/2001	Richard James Szwec	0918.0082C (1856/0034, D-	1752

7590 04/16/2003

EPSTEIN, EDELL, SHAPIRO, FINNAN & LYTLE, LLC  
Suite 400  
1901 Research Boulevard  
Rockville, MD 20850-3164

[REDACTED] EXAMINER

MARTIR, LILYBETT

ART UNIT	PAPER NUMBER
	2855

DATE MAILED: 04/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/882,068 Examiner Lilybett Martir	SZWEC ET AL. Art Unit 2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-15 and 21-24 is/are rejected.
- 7) Claim(s) 16-20 and 25 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 18 June 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

81. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 8-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Salatino (Pat. 5,085,084).

- With respect to claim 8, Salatino teaches first and second holding members as in elements 24,30,42 and 44 for holding both the package 10 and a portion of at least one lead 22 therebetween in respective stationary positions, the holding members being capable of being separated from each other for removal and insertion of the package and leads and of being closed with respect to each other for firmly holding the package and leads held therebetween (Col. 3, lines 6-21).

- With respect to claim 9, Salatino teaches each of the first and second holding members having a first discrete or separate region for holding the electrical package therebetween as in element 10, a second discrete region for holding one lead therebetween as in elements 30 and 42 depicted on the right side of Figure 4 and a third discrete region for holding another lead 22 therebetween as in elements 30 and 42 depicted on the left side of Figure 4.
- With respect to claim 10, Salatino teaches said one lead and said another lead are leads 22, which oppose each other across the package 10 as noted in Figure 4.
- With respect to claim 11, Salatino teaches leads 22 that have end regions and wherein the second and third discrete regions of the first and second holding means as in elements 30 and 42 depicted on the left and right side of Figure 4 are situated such that they hold the leads therebetween at the end regions as noted in said Figure.
- With respect to claim 12, Salatino teaches second and third discrete regions of the first and second holding means as in elements 30 and 42 depicted on the left and right side of Figure 4 situated such that they hold the leads in between the end regions and regions where the leads are joined to the package Note in Figure 4 that the wire is supported by elements 30 and 42 at an end portion and a portion directly proximate to it and that not only a minimal portion of the lead is supported by said elements).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 5-7, 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salantino (Pat. 5,085,084) in view of Ball (Pat. 6,230,569).

With respect to claim 1, Salantino teaches holding the package 10 and a portion of the lead 22 in respective stationary positions by means of elements 10,24,30 and 42, and applying a force to the lead proximate an area where the lead is joined to the package (Col. 3, lines 18-21). Even though he doesn't literally disclose measuring the resistance of the lead to the force, Salantino teaches that the pressure exerted in his test when the bond is broken is representative of the strength of the bond (Col. 3, lines 40-41). Ball teaches that it is well known in the art to pull a lead wire while measuring the increasing force until the wire bond breaks (Col. 2, lines 59-63). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the teachings of the testing method of Salantino utilizing a well known lead testing technique by measuring how much force the lead withstands until it finally breaks as taught by Ball to make said method versatile therefore allowing

to precisely obtain quantitative values that represent actual force measurements of the force being applied when the bond breaks.

- With respect to claim 2, Salantino teaches a lead 22 having an end region and the lead being held at it's end region by means of elements 24, 30 and 42 as noted in Figure 4.
- With respect to claim 3, Salantino teaches a portion of the lead 22 being held at a region between the end region and the area where the lead is joined to the package 10 (Note in Figure 4 that the wire is supported by elements 30 and 42 at an end portion and a portion directly proximate to it and that not only a minimal portion of the lead is supported by said elements).
- With respect to claims 5 and 6, Salantino teaches a force applied to the lead is a pulling force (Col. 2, line 67) and a force applied to the lead is a pushing force (Col. 3, lines 18-21).
- With respect to claim 7, Salantino teaches a package 10 that has two opposing leads 22 joined to it as noted in Figure 4, wherein the opposing leads 22 are held in respective stationary positions at their respective end regions by means of elements 30,24 and 42, and wherein said steps of applying a force (Col. 3, lines18-21), and measuring the resistance of the lead to the force (Col. 3, lines 35-41), are successively performed on each of said opposing leads (Col. 1, lines 52-58 and Col. 3, lines 22-28).
- With respect to claim 22, Salantino teaches means for holding the package 10 and a portion of the lead 22 in respective stationary positions

as in elements 10,24,30 and 42, and means for applying a force to the lead proximate an area where the lead is joined to the package (Col. 3, lines 18-21). Even though he doesn't literally disclose measuring the resistance of the lead to the force, Salantino teaches that the pressure exerted in his test when the bond is broken is representative of the strength of the bond (Col. 3, lines 40-41). Ball teaches that it is well known in the art to utilize means to pull a lead wire while measuring the increasing force until the wire bond breaks (Col. 2, lines 59-63). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the teachings of the testing method of Salantino utilizing a well known lead testing technique by measuring how much force the lead withstands until it finally breaks as taught by Ball to make said apparatus versatile therefore allowing to precisely obtain quantitative values that represent actual force measurements of the force being applied when the bond breaks.

With respect to claim 24, Salatino teaches means for holding comprising first and second holding members comprised by elements 24,30,42 and 44 for holding both the package 10 and a portion of at least one lead 22 therebetween in respective stationary positions, the holding members being capable of being separated from each other for removal and insertion of the package and leads and of being closed with respect to each other for firmly holding the package and leads held therebetween (Col. 3, lines 6-21).

6. Claims 4 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salantino in view of Ball as applied to claim 1 above and further in view of either Falcone (Pat. 5,836,071) or Tustaniwskyj et al. (Pat. 4,677,370).

- With respect to claims 4 and 23, Salatino fails to disclose a package being a ceramic package. Falcone teaches the utilization of a ceramic housing and Tustaniwskyj et al. teaches the utilization of a ceramic package (Col. 2, lines 37-39). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the teachings of the testing apparatus of Salantino utilizing a ceramic supporting and bonding structure as taught by both Falcone and Tustaniwskyj et al. to make a device versatile and reliable therefore allow for the monitoring of bonding characteristics of said material which is also insulating and widely utilized in circuit parts.

7. Claims 13-15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salantino in view of Chang et al. (Pat. 5,753,823).

- With respect to claim 13, Salatino teaches the first and second holding means as in elements 30 and 42 depicted on the left and right side of Figure 4 being closed with respect to each other. Salatino fails to specifically disclose the closing of said holding means by utilizing mechanical means linking the first and second holding means with each other. Chang et al. teaches that the utilization of mechanical means as in elements 32a, 32b, 34a and 34b to secure supporting or holding portions such as elements 20a and 20b of a test fixture. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the teachings of the testing

apparatus of Salantino utilizing a well-known type of mechanical fixing structures making a device more reliable and accurate by providing a firm and secure union between the holding means in order to prevent external forces from inducing slippage between the holding means that would result in inaccuracies.

- With respect to claim 14, Salatino fails to disclose mechanical means including a screw and abutment against which the screw may be tightened, wherein there is compressible means between the screw and abutment. Chang et al. teaches that the utilization of a screw and abutment as in elements 32a, 32b, 34a and 34b to secure supporting or holding portions such as elements 20a and 20b of a test fixture. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the teachings of the testing apparatus of Salantino utilizing a well known type of mechanical fixing structures that provide a firm and secure union between the holding means making a device more reliable and accurate by providing a firm and secure union between the holding means in order to prevent external forces from inducing slippage between the holding means that would result in inaccuracies.
- With respect to claim 15, Salatino teaches a package 10 having leads 22 which are held between first and second holding members comprised by elements 24,30 and 42 as noted in Figure 4.
- With respect to claim 21, Salatino teaches a window 34 through which a lead can be accessed by pushing or pulling means (Col. 3, lines 18-21).

***Allowable Subject Matter***

8. Claims 16-20 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, or if the limitations of said claims are inserted in the base claim including all of the limitations of the base claim and any intervening claims.

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilybett Martir whose telephone number is (703)305-6900. The examiner can normally be reached on 9:00 AM to 5:30 PM.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (703)305-4816. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3432 for regular communications and (703)305-3432 for After Final communications.

11. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

*CM*

Lilybett Martir  
Examiner  
Art Unit 2855

*QCM*  
April 10, 2003

*EDWARD LEFKOWITZ*  
EDWARD LEFKOWITZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800